U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Statoil Eisenbarth Well Response - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #2**
Progress
Statoil Eisenbarth Well Response
TBD
Clarington, OH
Latitude: 39.6974000 Longitude: -80.8980000

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Date: 7/15/2014

Reporting Period: 7/6/14 - 7/17/14

1. Introduction

1.1 Background

Site Number: C53G **Contract Number:**
D.O. **Action Memo**

Number:		**Date:**	
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	PRP	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	6/28/2014	**Start Date:**	6/28/2014
Demob Date:		**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Emergency Response - Oil/Gas Well Pad Fire

1.1.2 Site Description

1.1.2.1 Location

The STATOIL Eisenbarth Pad is located at 42240 Long Ridge Road, Clarington, Ohio. The pad is located in a rural area with approximately 25 residential homes located within 1 mile.

1.1.2.2 Description of Threat

On June 28, 2014, the Eisenbarth Pad was consumed by fire. Over 16 different chemical products were staged on the Pad at the time of the fire. Materials present on the pad included but not limited to: diesel fuel, hydraulic oil, motor oil, hydrochloric acid, cesium-137 sources, hydrotreated light petroleum distillates, terpenes, terpenoids, isoproponal, ethylene glycol, paraffinic solvents, sodium persulfate, tributyl tetradecyl phosphonium chloride and proprietary components.

As a result of fire-fighting efforts and flow back from the

well head, significant quantities of water and unknown quantities of product left the Site and entered an unnamed tributary of Opossum Creek. Runoff left the pad at various locations via sheet flow as well as by two catch basins located at the northwest and southeast corners of the pad.

Opossum Creek discharges to the Ohio River 1.7 miles upstream of a public water intake on the West Virginia side of the river. There are also protected species located down steam of the Opossum Creek confluence with the Ohio River.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The fire and explosion that occurred on the Eisenbarth Well Pad involved more than 25,000 gallons of various products that were staged and/or in use on the site. Upon USEPA's arrival at approximately 2000 hours on June 28, 2104, numerous fires continued to burn on the pad, uncontained run-off water was exiting the site and entering an unnamed tributary of Opossum Creek and flowback water from the Eisenbarth Well #7 was spilling onto the well pad.

Initial air monitoring did not detect any concentrations of volatile organic compounds (VOCs) in the community downwind of the site. On June 29th a fish kill was dectected on Opossum Creek approximately 3.5 miles downstream of the site.

See POLREP #1 for list of chemicals on site and other hazards present on the pad.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On June 28, 2014, at approximately 0900, a fire occurred at the Statoil Eisenbarth Well Pad. Preliminary reports suggest the fire to be the result of a broken hydraulic line that sprayed fluid onto hot equipment igniting it and spreading rapidly resulting in the loss of most of the equipment and chemicals on the pad. Several volunteer fire departments responded to the scene. A one mile evacuation notice was

issued for the area surrounding the Site affecting 25 residences.

At approximately 1900, fire departments ceased fire-fighting efforts and left the scene. A water curtain was maintained, using pump lines on site, to prevent the fire from spreading. Chemicals not consumed in the fire, water from firefighting efforts, and flowback from the well head migrated into rock/soils on the pad and flowed off-site via sheet flow and catch basins located in the northwest and southeast corners of the pad.

Responding agencies included but is not limited to: numerous local fire departments, Monroe County Emergency Management Agency (EMA), Ohio Department of Natural Resources Division of Oil and Gas (ODNR), Ohio Environmental Protection Agency (OEPA).

See POLREP #1 for additional details.

2.1.2 Response Actions to Date

June 28 through July 5, 2014 - See POLREP #1 for details

July 6, 2014

Unified Command: USEPA, OEPA, Statoil

Statoil removed oversized load trailers from the well pad and staged them in the Hannibal Industrial Park. USEPA and OEPA toured areas used to access Opossum Creek and it's tributaries as part of the fish collection effort. Minimal cutting was needed to provide access to workers. Information was forwarded to USFWS for review and comment on any restoration that may be needed.

All fires have been extinguished on the well pad however a few hot spots will be monitored as access to some areas on the well pad is limited. Improvements were made to the berm around the well pad in an effort to manage heavy rains and a sump was added to the southeast corner to facilitate the collection of any accumulated liquids. The accumulator bottles were examined and found to not be under pressure from residual nitrogen gas.

Statoil began preparing plans to isolate the subsurface

boreholes to allow the "frack stacks" to be removed and the well capped. This will allow for a safer work environment once cleanup activities commence on the well pad. Geoprobing of soils on the south and west slopes of the well pad began.

July 7, 2014

Unified Command: USEPA, OEPA, Statoil

Insurance adjusters and attorneys for Statoil and Halliburton were on scene to conduct an inspection of the site. During this time there were no non-inspection activities on the pad. After the inspection an additional sump was dug at the southeast corner of the pad to contain and collect product and contaminated storm water before migration off the pad. Sumps and test pits were dug off of the southeast corner of the pad across the storm water pathway. These will be used for storm water and product containment and collection on the southern slope off the pad. Sump monitoring and fluid collection continued on the pad.

Air and water sampling continued. Data from the prior week showed numbers returning to normal with the exception of acetone in water and TPH-DRO in sediments. Statoil and CTEH requested to stop sampling the Ohio River given the normal data ranges.

Statoil contractor CTEH sampled four geoprobe locations on the southern slope just down from the pad to determine extent of contamination.

July 8, 2014

Unified Command: USEPA, OEPA, Statoil

State Fire Marshall officials were on scene to conduct an investigation.

Statoil continues to work on a well isolation plan for the pad to be completed before any equipment can be removed from the pad. During thunderstorms today work was paused, however after the storms, water was recovered from the sumps on and off the pad and transferred to a frac tank.

Air and water sampling continued. There was no new data

to report. CTEH is working on a long term remediation plan for the site. CTEH has a sub-contact lab working on a method for the TTPC biocide that was on the pad before the fire. Sample aliquot are in holding at the lab to be analyzed once a method is developed.

CTEH continued geoprobe sampling on the southern and western slopes just down from the pad.

July 9, 2014

Unified Command: USEPA, OEPA, Statoil

Statoil continues to work on a well isolation plan for the pad to be completed before any equipment can be removed from the pad.

During the morning water sampling, a french drain outfall at the western edge of the slope off the pad was sampled and was observed to have a distinct sweet, acetone like smell and had readings of 40-50 ppm VOC with a Multi-RAE. The water was sampled and Unified Command was notified. OSC Maguire went to the scene and identified another outfall at the northwest corner of the slope off the pad had water with a similar smell. USEPA directed Statoil to immediately contain the outfalls to stop further release into the creek. Over the course of the day, Statoil and their contractors installed a dam below the french drain outfall, and plugged the northwest outfall at the nearest upstream sump. This water was sampled at both locations.

Air and water sampling continued at normal locations, and sampling in the Ohio River was re-started given the new release noted above. There was no new data to report.

CTEH continued geoprobe sampling on the western slopes just down from the pad.

July 10, 2014

Unified Command: USEPA, OEPA, Statoil

Statoil finalized the well isolation plan and is waiting for supplies to commence activities. Meanwhile the pressures in the wells are being checked to allow for isolation.

Containment and recovery operations continue 24 hours/day. 193 barrels of fluids have been collected to date.

Air and water sampling continued at normal locations. There was no new data to report.

Two additional Geoprobe units were mobilized to expand and expedite slope characterization. Boreholes will be monitored and will be sampled when any visual evidence of contamination or readings from the PID exist.

Statoil hosted a public meeting that USEPA did not attend. Statoil reported that 75-100 were in attendance. The only significant issue that was reported was regarding how the evacuations took place during the fire. The Monroe County EMA will host a lessons learned from the incident on July 23.

July 11, 2014

Unified Command: USEPA, OEPA, Statoil

Statoil reports that all wells are under the appropriate pressures to facilitate isolation. One well is "bridged", meaning that there is gas instead of water at the surface. The gas will be pumped out of the well and flared until it can be safely isolated. The flaring activities will only happen during daylight hours.

Containment and recovery operations continue 24 hours/day. Statoil had two new contractors on site to shore up the containment and recovery operations. The dam below the french drain outfall on the western edge of the slope was reinforced and additional equipment was staged at southern slope outfalls as a contingency. Additional storage capacity was also staged at a central location to facilitate movement of fluids. The access road down the slopes was reinforced with rock as during rain events the road was impassable.

Air and water sampling continued at normal locations. Data continued to show a decline in concentrations in the creek, however only data through 7/6/2014 is currently available.

Geoprobe soil borings continue on the slopes of the well pad. Field screening using a PID and odors from the samples suggest that chemical contamination is present in these

borings as deep as 24 feet below the ground surface. Samples were collected at various intervals. Results are pending.

Unified Command will enlist a less formal incident command structure. Meetings will continue as scheduled however an Incident Action Plan will be replaced with a daily work order.

July 12, 2014

Unified Command: USEPA, OEPA, Statoil

Statoil mobilized additional contractors to support runoff containment operations. On site roads are being reinforced with rock and crushed stone to support heavy traffic. Containment at collection point #2 has been improved with greater capacity. A frac tank has been mobilized and secondary containment has been established. Fluids collected at containment points 1, 2, and 5 will be pumped to the frac tank. Fluids from #2 hole is being collected with a super sucker.

Geoprobe soil borings continue on the slopes of the well pad. Air and water sampling continued at normal locations. Data continues to show a decline in concentrations in the creek. A data logging rain gauge was setup in anticipation for future rain events.

July 13, 2014

Unified Command: USEPA, OEPA, Statoil

Heavy liquids are being pumped into the 3 wells to control pressure. The heavy liquids are an interim step for the installation of downhole wireline plugs. An ODNR inspector is on-site observing the operation.

Wells are being prepared to receive new tooling that will enable the replacement of permanent tubing heads. Once the plug is set, the existing tubing heads will be replaced with a new tubing heads.

On site road reinforcement is complete. Daily air and water sampling continues. Containment and recovery operations

continue 24 hours/day. Installation of a 2 inch poly hose was completed to pump liquids from the collection points to the frac tank. A 1,000 gallon tailer mounted vacuum truck was mobilized to the site for collection point #1.

Geoprobe soil borings on the slopes of the well pad is complete. Air and water sampling continued at normal locations.

July 14, 2014

Unified Command: USEPA, OEPA, Statoil

The safety officer reported that a near miss incident had been reported where an employee slipped but was not injured attempting to access containment point #2 at the base of the western slope. This is a particularly treacherous area to access due to large boulders. The company is working to locate some type of pre-fabricated stair system that can be deployed to this location. No other injuries or incidents of concern.

Statoil began breaking Frac Stacks on 3 wellheads in preparation to set wireline plugs. Operations section reported that the plugging of the wells was delayed because needed tools were not on Site. Tools were delivered late in the day and a plug in well 5H was set around 18:00.

Soil sampling was conducted on the north edge of the well pad and additional sampling will continue on Tuesday.

OEPA and USEPA commented on a draft copy of Halliburton's salvage operation plan for removal of the damaged equipment from the pad. The plan was also provided to ODNR for review and approval. The removal of damaged equipment is anticipated to take approximately 14-21 days to complete.

Daily air and water sampling continue to show favorable

results.

July 15, 2014

Unified Command: USEPA, OEPA, Statoil

Well 5H and 6H had wireline plugs set at 5,000 ft bgs. Top of fish in 7H was discovered at 750 feet bgs, a decision was made not to install wireline plug at this depth. Decision was made to install a back pressure valve on 7H instead. New tubing heads will be installed on all 3 wells on Wednesday 16th.

Initial set of fabricated stairs arrived on site for collection point 2. The steep incline posed a safety risk for slip, trips and falls. Additional stair sections will be mobilized to the site to reach as close to the bottom of the incline as possible.

Off-site residential well sampling began and results should be available next week. Future soil sampling locations were identified on the pad. Sampling will take place in the next day or two.

Water collection continues at containment points 1, 2, and 5. Acetone levels in the tributary, Ohio River, and Opossum Creek are well below EPA Region 5 RSLs. There is still some acetone at the source location but all the water coming from the pad is being contained. Chloride levels have returned to background levels in the tributary, Ohio River, and Opossum Creek.

CTEH has requested USEPA and OEPA consider permitting reduced sampling efforts due to the consistent drop in contaminate levels below surface water discharge standards. Daily sampling show analytical results below these standards starting on July 6th through July 12th . Continued decreasing levels in the tributary and Opossum Creek are indications

that on-site containment is effective.

July 16, 2014

Unified Command: USEPA, OEPA, Statoil

New tubing heads were installed on all 3 wells. Concrete barriers will be placed around the cellar to protect the heads during salvage operations.

Evaluated the feasibility of using the fabricated stairs for collection point 2. Decision was made to not install additional stairs. Installation was very difficult and could not sufficiently cover the most difficult areas located in steep wooded areas. Alternate work practices will be evaluated to reduce slips, trips and falls.

Off-site residential well sampling continues and is scheduled to be finished by Friday July 18th Water collection continues at containment points 1, 2, and 5. As of 07:00 hours July 16th 21,360 gallons have been contained in frac tank on site.

CTEH will develop a written proposal for future water, soil, and air sampling moving forward and present it to USEPA and OEPA for comment and approval. Daily sampling shows analytical results well below all USEPA and OEPA standards starting on July 6th through July 12th . Analytical results for the tributary and Opossum Creek are currently at or below the lowest detection point for the laboratory.

Dye testing took place on the mystery drain on the western edge of the pad. Fire runoff water was observed entering this drain during the ER. It was unknown where the drain was connected and where the runoff water was going. The mystery drain was confirmed to be connected to the sump in

the NW corner of the pad. The sump is currently plugged and pad drainage is being pumped to a frac tank on the pad.

July 17, 2014

Unified Command: USEPA, OEPA, Statoil

Statoil installed cement jersey barriers around the wellhead cellar for protection and prevention of accidental collisions when pad salvage and recovery operations begin. Several pieces of equipment owned by FMC was removed from the pad. A salvage operation plan is being coordinated with ODNR. Runoff containment continues with plans to automate recovery and collection at containment locations 2 and 5.

Air sampling and surface water sampling continued. Previous sampling events show water quality in the tributary and Opossum Creek are below state and USEPA screening criteria. Data indicates site collection points are effective in preventing further discharges to the tributary.

USEPA and OEPA have approved a revised site sampling plan to reduce the number and locations of required samples.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

USEPA is in negotaitions with Statoil on an Administrative Order on Consent.

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

Continue 24 hour/day containment and recovery operations

Ecological assessment of impact of runoff onto the unnamed tributary of Opossum Creek and Opossum Creek.

2.2.1.2 Next Steps

Finalize Well Pad Salvage Plan. Salvage operations will be

overseen by ODNR. Characterize and delineate on- and off-site contamination and remediate as necessary.

2.2.2 Issues

None at this time

2.3 Logistics Section

N/A

2.4 Finance Section

N/A

2.5 Other Command Staff

N/A

3. Participating Entities

3.1 Unified Command

U.S. Environmental Protection Agency

Ohio Environmental Protection Agency

Statoil

Ohio Department of Natural Resources Division of Oil and Gas

3.2 Cooperating Agencies

Monroe County Emergency Management Agency

Clarington Volunteer Fire Department

ODNR Division of Wildlife

U.S. Fish and Wildlife Service

ATSDR

Ohio State Troopers

4. Personnel On Site

1 - EPA OSC
1 - START (Tetra Tech)

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

Pending

6.2 Reporting Schedule

Pending

7. Situational Reference Materials

No information available at this time.